



Newsletter #1
Nov - Dec 2012

SANAE 52

»» And so the adventure begins...

Meet the Team

Dozer & Crane Training

Climbing Training

Firefighting Training

First Aid Training

Cooking Training

Love 'em and Leave 'em

A Day Stuck on the Ice

The Adventures of Doc

Weather on Board

Stats & Sponsors



Meet the **SANAE52** Team



From Left: Pieter, Karabo, Philip, Grethe, Craig, Adam, Wihann, Rob, Kgomotso, Cornelia

Technical Team

Adam Zięba

Position: Electronic Engineer / Team Leader.
Birthday: 29 September
Age: 29
Responsibility: Make sure that after takeover, Facebook works until takeover.
Secret Identity: James May

“

I grew up in Vanderbijlpark, studied under and post graduate at The University of Pretoria, and have worked in telecommunications since graduation. I'm looking forward to:

1. Saying “It is the middle of summer and it is the middle of the night” while it is bright out. (done)
2. Saying “It is the middle of winter and it is the middle of the day” while it is dark out.
3. -40 degrees celcius
4. Complete silence
5. Super cooled beer

”
Challenge Accepted

Rob Coetzee

Position: Doctor / Deputy Team Leader
Birthday: 8 March
Age: 42
Responsibility: Keep everyone alive.
Secret Identity: Veterinary Assistant
Home Town: Citizen of the World

Craig Harrison

Position: Mechanical Engineer
Birthday: 17 July
Age: 47
Responsibility: Keep the home fire burning
Secret Identity: The Adventurer
Home Town: Sedgefield

Kgomotso Puleng

Position: Electrical Engineer
Birthday: 4 June
Age: 33
Responsibility: Keep the lights burning.
Secret Identity: KIBI

Home Town: Bwa - Thema

Wihann Groenewald

Position: Diesel Mechanic
Birthday: 11 February
Age: 27
Responsibility: Keep wheels turning.
Secret Identity: DJ Pik
Home Town: Kraaifontein

***Pampoenskoene:** Ridiculously warm and like walking on platforms, but gives much better grip on ice. You know you want a pair!*



Pieter du Plooy

Position: Diesel Mechanic
Birthday: 1 June
Age: 53
Responsibility: Keep the motors running.
Secret Identity: Grumpy
Home Town: Rayton

Scientific Team

Philip Mey

Position: HF Radar Engineer
Birthday: 11 September
Age: 26
Responsibility: Climbing Antenna's and making sure the radar system works.
Secret Identity: Captain Blackbeard
Home Town: Stellenbosch
Hope to achieve: Professional status in darts and billiards (pool)

Cornelia Oberholzer

Position: Space Weather Engineer
Birthday: 1 October
Age: 30, but 29 if anyone asks
Responsibility: Alert us to auroras and climb the antennas with Philip.
Secret Identity: The Shovel Girl
Home Town: Vereeniging
To Do List: Make snow angel, build an igloo, knit a pony.

Grethe Rademan

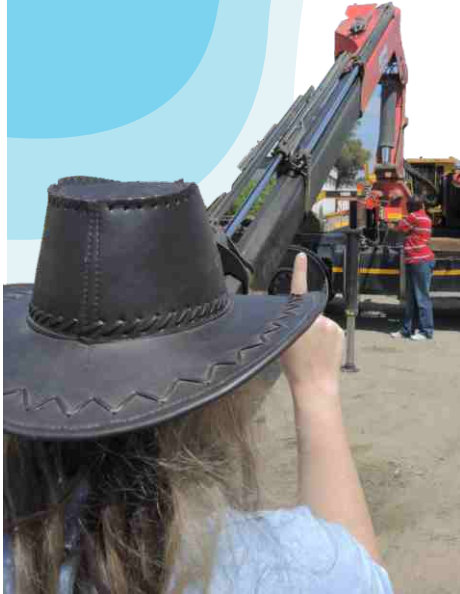
Position: Cosmic Ray Engineer
Birthday: 22 Augustus
Age: 26
Responsibility: Potchefstroom equipment and projects
Secret Identity: Cake Boss
Home Town: Stellenbosch

Karabo Mokwena

Position: Senior Meteorologist
Birthday: 30 December
Age: 26
Responsibility: Make it rain
Secret Identity: The Bullet
Home Town: Garankuwa



First Steps: Training at DEA



Dozer Training ««

by Cornelia

Our first training as a team kicked off with Caterpillar dozer and Challenger training at Barloworld. The training is intended familiarize us with the machines that will be our transport and muscle throughout the year.

SANAE IV has six dozers and Challengers at its disposal during take over. One to three of each type return to South Africa each year after takeover for planned maintenance or due to major repairs that need to be undertaken. After the repairs have been completed the machines are then typically used to train the new team members whilst still in South Africa.

Unfortunately, the weather was so bad during the back-loading operations last year that a large amount of the back-loading could not safely be performed, including some machines. This meant we didn't have any machines to play with in the name of training. We did however receive theoretical training on the machines and will get hands on training during the two month take-over period.

At the time of writing this, four members of our team are on the ice with the Cat train taking containers from the offloading point to SANAE IV base 300km away. They are accompanied by experienced drivers who will give them their first practical introduction to the machines. The rest of the team will have a chance to learn during take over.

Next year we will be on the ice preparing the machines for the back-loading and off-loading operations, so we will need to learn fast.



Crane Training ««

by Cornelia

For lifting loads in the field, where there isn't a huge crane to do the heavy lifting, like on the S.A. Agulhas II, we will be using truck mounted cranes - or in our case, dozer mounted cranes. Following a rigging course we each had the chance to practice operating a truck mounted crane, while another gave the required hand signals.

The rest of the team played a prank on Philip and I whilst he was operating and I was directing. When I indicated left he went right, when I said down he went up. What we didn't realise was that the crane has secondary controls that should be locked out to prevent someone else from operating the crane. A lesson well demonstrated by the instructor, but which left me doubting Philip's sense of direction and his sanity



Climbing Training

by Adam



Crampons are the things that you put on the bottoms of your boots so that you can walk on ice. They are also useful for tenderising steaks and defending against polar bear attacks.

Team training is great. One gets to do many things that you would not have imagined yourself doing in the real world. Fling yourself off of a 20 meter sheer rock face. Done. Actually, climbing training is more than pretending to be in Cliffhanger. Yes, some people still remember the movie.

It is 19h00, we have had a long day doing some other training, probably first aid. Ross (our rope safety instructor) walks into the boardroom at East Pier Lane with a backpack and two bags full of kit. His beard gives him the appearance of someone who just might have recently overwintered at SANAE. He walks everyone through the various items that can be used for rope safety. Everything from carabiners to crampons.

Fast forward to the net morning. Now the fun starts. We hoped for no rain and sunny weather. We got wind and a little bit of drizzle. You can't have everything, I suppose. Glenco quarry is where we received the practical part of the rope training.

During belay training the team acquainted themselves with heights, some took to it with more zeal than others. Pieter's climbs are noteworthy. He is probably the most naturally gifted of the whole team.

Next came ascending and descending. This is where you use little bits of rope (prussic loops) to climb a bigger rope. A figure of eight is used to abseil or descend (a metal thing). We learned how to safely switch from ascending to descending while dangling perilously (1meter) off the ground.

We mastered crevasse rescue (a potentially important one) on the final day of training. The scenario is that if for some reason we are required to move on foot in certain areas, it is important to be able to tie together correctly, so that if someone falls into a crevasse, the rope tied to the other members of the team will stop a fall to the bottom (if the crevasse does indeed end). A member of the British Antarctic Survey fell down a crevasse in 1987 and is still falling to this day. Food and water is dropped every now and then to keep the poor chap alive. I digress.

In order to retrieve a person who was unlucky enough to take a fall into a crevasse, a pulley system must be set up using carabiners and prussic loops,



(the little pieces of rope from earlier). If you want to be fancy you can use a pulley. Expeditioners, however, don't need pulleys to rescue their falling comrades.

Two team members obtained an IRATA rope access training certification, which meant that they are certified to climb and rescue climbers in a industrial rope access setting. This will be useful for them as they are required to periodically check that the antenna pylons are sturdy.

Time on board the SA Agulhas II was used to sharpen our theoretical and practical skills and transfer a bit of knowledge here and there. One learns something new every time one practices a skill.



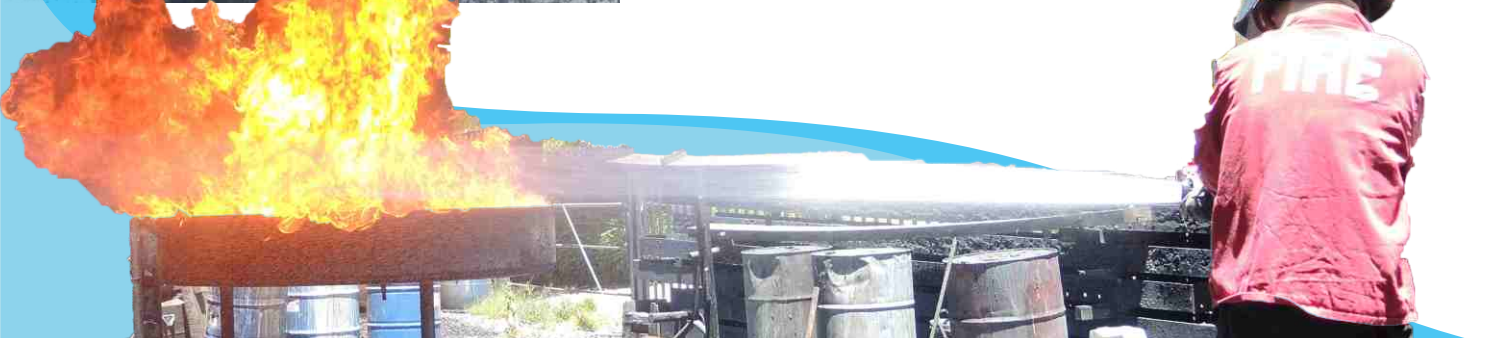
Firefighting Training ««

by Adam

One of the more fun parts of the training was putting out raging fires. The day started out as usual. We arrived at East Pier Shed bright and early and were ready to head off to Redwatch to defeat the burning flames of hell. There was only one problem, we were sure that training was taking place in Tokai. Google Maps insisted that Redwatch was not in Tokai. We very nearly headed for somewhere that very likely had no flames of hell. Fortunately, someone had a GPS or some other small miracle occurred and guided us to the correct place.

On the way we solved world peace, fixed the political situation somewhere or other and Adam became semi-seasick due to the design of the suspension/chassis which quite accurately, we later learned, simulates the seas in the roaring 40s. I suppose that we are lucky to have received some high quality seasickness training gratis from VW.

Day one of the training consisted of some lectures (read adrenaline level -43) and learning how to use hoses and nossels. The rest was more interesting. The team learned to navigate in total darkness without losing each other and put out fires with various types of extinguishers. The best part was when we got the opportunity to fight fires indoors while wearing a full face mask and using breathing apparatus. Firemen are a brave bunch. Everyone should be a fireman, even if just for one day.





First Aid Training

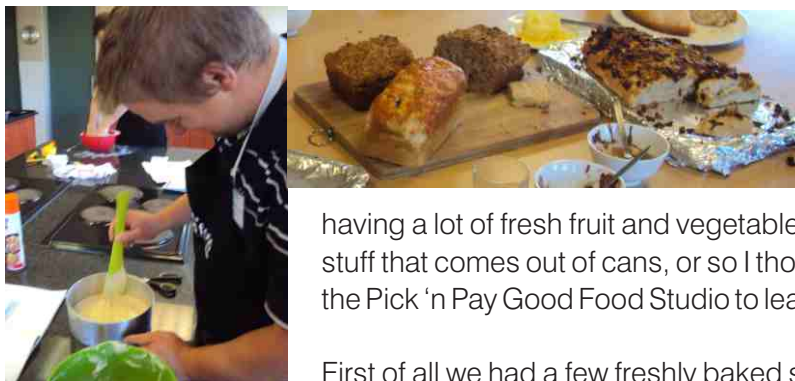
by Grethe

Stop, drop and roll... oh, wait, that's not what you do in a medical emergency. So what do you do? So started a 2 day course at the South African Red Cross Society, with a very energetic and passionate instructor there was no way we could be bored for a second. And she had her hands full. Somehow the sequences of Hazards, Hello, Help (3 H's) and Airways, Breathing, Circulation, Decide (ABCD) had our fearless leader in a deadlock of confusion, which was really entertaining to the rest of us, but gave the instructor a good run for

her money.

Trying to coordinate a pack of tired misfits into giving CPR on plastic half human dummies was a task and a half. Those things are creepy as hell, it doesn't matter what the circumstances are, it is always weird and awkward after the age of 12 to ask a doll if it is doing ok and expect an answer.

The theory of it all was very interesting, but what did it mean for Antarctica. It basically came down to check if the person is alive and call Rob, put pressure on the bleeding and call Rob, wrap it up and call Rob and do mouth-to-mouth until Rob shows up. We basically learned 15 plus ways to call and wait for Rob. Poor Rob, I don't think he knows what he is getting himself into, but at least I hear he is a really good vet.



Cooking Training

by Grethe

So what do we do for food in Antarctica, you may ask? The first notion that comes to mind is definitely not having a lot of fresh fruit and vegetables. So one should acquire a specific skill of cooking with stuff that comes out of cans, or so I thought. Luckily we were sent on a 2 day cooking course at the Pick 'n Pay Good Food Studio to learn this peculiar art of cooking.

First of all we had a few freshly baked scones and coffee just to set the mood. With everyone's stomachs filled with home baked goodness, the lucky draw for your dish of the day began. It was on like donkey-kong, everyone scattering to find their ingredients, pans flying, and everyone ready to impress. The first day was mostly baking, so that included an array of breads, pizzas, crunchies, shortbread, chelsea tray bakes, chocolate squares, etc... But the most potent of them all probably had to be the mocha brownies with chocolate fudge sauce. Man was that good, even though you knew your diabetes would act up in 30 seconds, it was worth it.

The next day we tried our hand at some good old fashioned dinner recipes, only to realize that apparently the answer to what do you eat in Antarctica involves an enormous amount of pasta, butter and smash. There were some delicious curry recipes, but they were quickly invaded by cottage pie, fish pie, beef stroganoff, boloroni, and a tuna surprise, that surprised no-one. We all realized we are going to die if we eat like this every day. Even though it was delicious, I think we could all agree that there has to be some other options.

At the end of the day, I think we will just all be eating meat, meat and some "boerewors" on the side. It is very dry in Antarctica, probably because all moisture instantly freezes, but it means we can make some very decent efforts to make enough biltong and "droëwors" to see if we could actually get sick of it.





Love 'em and Leave 'em

by Philip

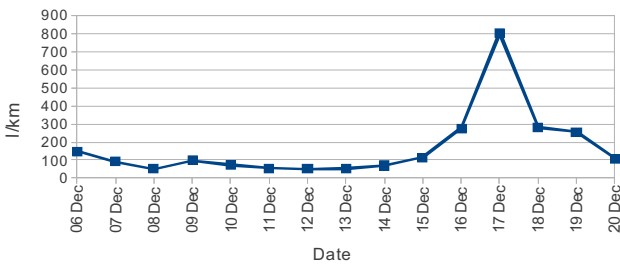
The day of our voyage, 6 December 2012, we had to report to the ship at 11h00 – three hours before departure. This was to ensure

enough time to take our luggage to our cabins and be present for the customs officials. It left us with about three hours for breakfast and some last minute socialising with our families and friends. The morning was filled with the excitement of leaving; and a hint of anxiety about spending a year in Antarctica. Before we knew it, we were saying goodbye, climbing the rickety steps and standing on the side of the ship looking across the divide at the faces we will miss most for the next fourteen months.

Like all ceremonies, a speech was given for the maiden voyage to Antarctica and the team mad enough to spend a year there. With the introduction of the SANAE 52 team, we had the opportunity to get off the ship again – this time it was final and we had about 20 minutes to do our farewells, giving some more reasons for tears. The music from the Titanic soundtrack (as well as a few other “tranetrekks”), together with the slow manoeuvring out of the dock did not do much to alleviate the sad faces all around. Although the members of S52 seemed to be handling the farewell a lot better on the ship – perhaps because of the adrenaline or, in some cases, motion sickness medications in our bodies.

And so it was, at 14:07 GMT+2, that we said farewell to South Africa, to family and friends, to shopping malls, high-speed internet, traffic jams and KFC... to name but a few...

Fuel Economy of SA Agulhas II



A Day Stuck in the Ice

by Philip

The SA Agulhas II has been advertised as the first ship of its kind – a combined passenger vessel; research vessel; oil tanker and cargo carrier. The ship has two 4500 kW engines for propulsion which allowed us to cruise at a comfortable 13 knots in open waters for most of the voyage. Once we reached

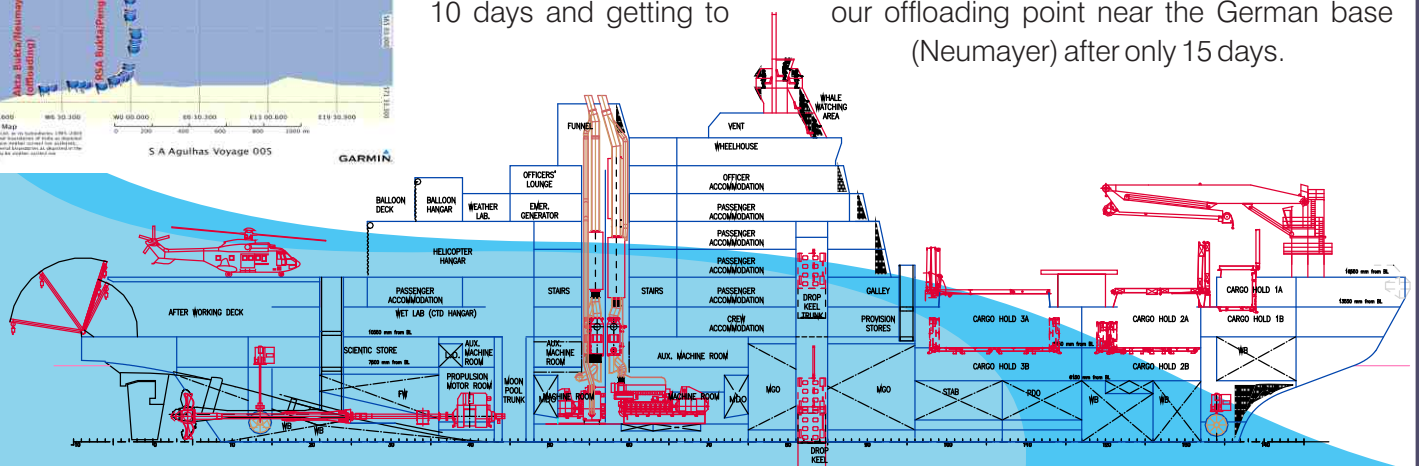
the ice our speed decreased to around 5 knots (0 knots when we were stuck in the ice for almost two days).

When you get stuck off-road there are usually other vehicles, or at least equipment you can use to get out.



When you get stuck in the ice you can only reverse a bit and continue prodding the ice until it gives – hopefully. The other problem with getting stuck in the ice is that we need to keep the engines turning to keep the water from freezing as well as to try and get through.

As can be seen above, the effect of getting stuck in the ice had a serious impact on our fuel economy. As many other things, getting stuck in the ice is an experience on its own and in comparison with the first Agulhas, the new ship has performed well reaching the RSA/Penguin Bukta in only 10 days and getting to our offloading point near the German base (Neumayer) after only 15 days.



Adventures of Doc ««

by Rob



It was with great excitement and much ado that we left Cape Town on the 6th of December on the brand new and very impressive SA Agulhas II. I was fortunate enough to be shown around the ship's medical facilities a few days before we sailed, and what a medical centre! I've worked aboard ships as a physician for the past 3 years, and must confess to being very, very impressed. The Agulhas II comes fully equipped with a 3 bed hospital, a fully functioning operating theatre with all the bells and whistles, including capnography, ultrasound facilities and state-of-the-art digital X-Ray and fluoroscopy capabilities.

As the only medical person on the Agulhas II, I was responsible for the health and well-being of the entire crew and passenger compliment; even though a nasty rumour was circulating that I'm actually a veterinarian in disguise!

Fully equipped and ready for anything, I didn't have too long to wait for my first victim – I guess it's like the baseball movie, build it and they will come! First up was a member of the overwintering team, who will of course remain nameless! He's sticking to his story that he fell out of the top bunk bed when getting up in the middle of the night. Fortunately, his ego sustained more of a bruising than the rest of his body, but it was only the start of things to come...

Over the next 10 days I attended to one dislocated shoulder, one fractured hand and an assortment of sprained ankles, back spasms and various bumps and bruises. Remarkably, most of these injuries were sustained either when falling down stairs or slipping on a wet and pitching deck. Equally remarkable was that all these injuries were confined to the passengers and scientists, with not a single injury reported amongst the Agulhas II's capable and very experienced crew!

Even though the Roaring 40's lived up to their reputation, we ended up with very few cases of sea sickness. Add to this the usual complaints of flu, sore throats, heart burn and non-specific coughs, aches and pains and you have a pretty good idea of what it's like to look after the health of an Antarctic scientific and re-supply vessel.

We fortunately managed to get through the entire south-bound journey without any really serious injuries, even though I was chomping at the bit to make use of the Agulhas II's excellent and well equipped medical centre – honestly, I know very little about horses...

Weather On Board ««

by Karabo

The trip to Antarctica was rather long; I think the biggest reason was that we were just too excited to get to our destination. Fortunately for me: I was part of the weather service team on board, so I got to do some interesting work which made my trip a bit more enjoyable. I'm not going to talk about the boring cloud observations that I did, but rather the midnight weather balloon launches. A weather balloon is roughly 1.6m in diameter (when inflated) balloon which we pump with helium or hydrogen, then tie a device called a radiosonde to it. In plain English a radiosonde is a small box which consists of a battery, humidity sensor, temperature sensor, dew point, pressure sensor and a GPS. All which can be monitored from the weather office computer after an ascent. Some evenings I would have quite a lot of spectators, some even offering to help release the balloon and this made me quite popular on the ship amongst other things.



Weather Stats for December:

Temperature

Minimum: -13.3 °C (on 08/12)

Average: -6.1 °C

Maximum: 2.5 °C (on 14/12)

Pressure

Minimum: 879.7 hPa (on 11/12)

Average: 890.1 hPa

Maximum: 899.3 hPa (on 21/12)

Humidity

Minimum: 22% (on 30/12)

Average: 69%

Maximum: 98% (on 24/12)

Wind Gust

Maximum: 28.8 Knots (on 25/12)

Average Daytime Length:

24 hours

Stats & Sponsors



Southern Right



NEWTON JOHNSON

LABRI 1694
FRANSCHHOEK



MEERLUST

**Photo of the Month: See Above
Taken by Rob**

**Quote of the month:
"Omg it's worse than dial-up" - Adam**

**Movie of the month:
127 Hours**

**Song of the month:
I'm on a boat - Lonely Island**

